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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,559	10/01/2003	Zhihong Ye	133070	9527

23413 7590 04/19/2005

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EXAMINER

VO, HIEN XUAN

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/677,559

Applicant(s)

YE ET AL.

Examiner

Hien X. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-33 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/01/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/01/03. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 rejected under 35 U.S.C. 102(b) as being anticipated by Wills (U.S Patent No. 6,219,623).

With respect to claim 1, Wills discloses the anti-islanding method and apparatus for distributed power generation (see e.g. Abstract) including a sensor adapted to generate a voltage signal representative of an output voltage at the distributed generation, a current signal representative of an output current at the distributed generation, or any combination of signals comprising at least one of the foregoing (see e.g. col. 6, lines 29-36); and a controller responsive to the signals from the sensor, and

productive of a control signal directed to the distributed generation to drive an operating characteristic of the distributed generation out of a nominal range in response to the electrical grid being disconnected from the feeder (see e.g. col. 6, lines 38-46).

With respect to claims 2-3, Wills discloses the invention as claimed including a monitor responsive to the operating characteristic of the distributed generation being driven out of a nominal range (see e.g. col. 1, lines 19-24), and productive of a trip signal for disconnecting the distributed generation from the feeder (see e.g. col. 2, lines 58-65), the operating characteristic is an output voltage, an output frequency, or both an output voltage and an output frequency of the distributed generation (see e.g. col. 5, lines 31-34).

With respect to claims 4-6, Wills discloses the invention as claimed including the controller is adapted to transform the signals from the sensor from stationary coordinates to rotating coordinates, generate a control signal in rotating coordinates, transform the control signal from rotating coordinates to stationary coordinates to produce an output control signal, and send the output control signal to the distributed generation (see e.g. col. 6, lines 38-46), in rotating coordinates, generate a frequency signal representative of a frequency at the distributed generation (see e.g. col. 5, lines 8-10); modify at least one of a current reference and a power reference in response to at least one of the voltage signal, the current signal, and the frequency signal (see e.g. Fig.4); and in rotating coordinates, generate the control signal in response to a modified current reference or power reference, generate a voltage variation signal in response to the voltage signal (see e.g. Figs 3-5); generate response to the frequency signal;

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generate a current variation signal in response to at least one of the voltage variation signal, and the frequency variation signal; and modify the current reference in response to the current variation signal (see e.g. col. 8).

4. Claims 7-33 allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

For claims 7, 15, 20 and 25, the prior art does not teach singularly or in combination an input converter adapted to transform a voltage signal from the distributed generation from stationary coordinates to rotating coordinates; an input converter adapted to transform a current signal from the distributed generation from stationary coordinates to rotating coordinates, a frequency signal generator adapted to provide a frequency signal representative of an output frequency of the distributed generation; a current regulator adapted to provide a control signal to the distributed generation; an integrator responsive to the voltage signal, the current signal, the frequency signal, or any combination comprising at least one of the foregoing signals, and adapted to provide an integrated signal to the current regulator; and an output converter responsive to the control signal, the frequency signal, or any combination comprising at least one of the foregoing signals, and adapted to transform the control signal from rotating coordinates to stationary coordinates; wherein a disconnected electrical grid results in the voltage and/or frequency at the distributed generation being

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driven away from a nominal range and the distributed generation disconnect being opened, thereby isolating the distributed generation with respect to the feeder.

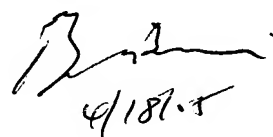
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien X. Vo whose telephone number is (571) 272-2282. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Vo
04/12/05

BRYAN BUI
PRIMARY EXAMINER



4/18/05